

# R.A.C.E.

## JOURNAL

DECEMBER, 1987

REDDING ATARI COMPUTER ENTHUSIASTS

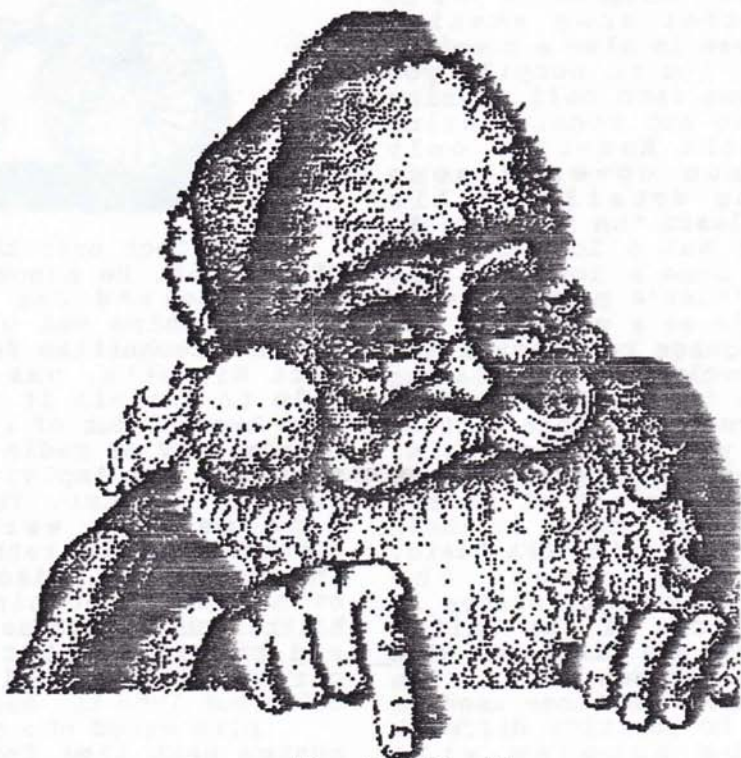
### R.A.C.E. 8-BIT

Rico's Pizza Parlor  
1st Saturday of each  
Month 6pm  
MIKE DENNIS, 547-3998



### R.A.C.E. ST SIG

Angelo's Pizza Parlor  
Foundry Square on California Street  
2nd Saturday of each Month 7pm  
MIKE FARRAR, 243-5189, 347-0416



R. A. C. E.

P.O. BOX 818, COTTONWOOD, CA. 96022



# R.A.C.E ST SIG MEETING NOTES - 11/87

Bob Wierman and Ben Drake opened the ST SIG meeting of the Redding Atari Computer Enthusiasts. They did an excellent job of covering the major points of the amazing Basic language of GFA Basic. Bob Wierman shared most of the time, covering the basic commands used in the programming language as well as the screen menu of the program. He discussed how the language functions and some good and bad points of it as a programming language. His basic feeling was that it should be the language of choice for ST users since it is not hard to learn or use nor very expensive. There are numerous support programs and files available which allow you to piece together some amazing programs. There is also a compiler which allows you to compile your basic programs into self running ones which do not require using the GFA Basic Run-time only program. Ben covered some interesting details of his attempts to learn the program. He said that he has a lot to learn yet but has come a long way and from the beginner's point of view sees GFA Basic as a very easy and exciting language to program in. He is very involved in downloading support files for GFA Basic and if you are interested in this sort of information you should see him. Bob demonstrated a program that he had developed for use at Shasta Meadows Elementary School in their geography classes using GFA Basic. It "basically" tests the children's knowledge of states in specific regions of the United States. Regions are displayed with the states in various colors. The colors correspond to those used in the textbook to identify different states. The program will numerically give you a percentage

of correct answers which helps to motivate students. It was a very amazing demonstration of what can be done and this will become a part of our club disk library. There was some discussion following this presentation of having a GFA Basic class or occasional tutorial seminar. This will be hashed over and pursued possibly.



Mike took over the meeting at this point. He announced that he had received one of the new blitter chips but was unsure of how his technician for his store, Curt Ricketts, was going to be able to install it in the ST's. Mike brought out of the box a huge electric TV or radio tube of some sort and was implying that this was the blitter. The expectant club members were a little disappointed but rather amused at the visual aid. Mike stated that he had heard nothing about the blitter chip upgrades for the ST's and theorized that all of the currently available ones were being put into the Mega's.

Mike asked who could bring a system next time for use at the club meeting. Several people



volunteered Jim Demarco and said that they would ask him. Mike said that he had made allusions to the fact that he might be able to bring one.

Mike shared a letter from the San Leandro Computer Club asking about the source for the menu program that is used on our club disks. Mike said that he would send them one of our November club disks which has the listing of the club disk library on it with an explanation that the menu program was obtained from Compute's Atari ST Support disk.



The booklet that was being worked on by Bill and Judy Ball was passed around. Mike said that they had undertaken a monumental task of documenting all of the hidden keystrokes and commands that allow for short-cuts in using the ST. It is basically call the R.A.C.E. ST SIG HINTS AND TIPS MANUAL. Mike will be working with Bill and Judy in trying to get the entire manual on a club disk complete with pictures for illustrating points. This is a manual which will continually be updated and can be made available to any club member willing to pay for duplication costs.

Mike passed around a copy of the Wordperfect manual he had received since his store has been approved as a Wordperfect dealer. The manual is massive, but there

is plenty of help in the manual as well as a tutorial disk included to help those who are unacquainted with the program.

Curt and Mike announced that Hi-Tech, a company based in Redding, is working on a new hard drive for the ST. Currently they are testing controllers for it and are experimenting with several sizes of boxes. Curt and Mike are also working on a 5 1/4" drive which can be hooked up to an ST for use with PC-Ditto. Another function which they hope to include is the ability to store ST programs and files on 5 1/4" disks. The one snag presently is finding a program which allows for the change of the step rate in the computer. There is a difference between the 5 1/4" drive used and the computer at present. The use with PC-Ditto and IBM programs has been tested without a problem. Curt and Mike have yet to set a price for their 5 1/4" drives. Various other companies are marketing such drives between \$220 and \$280.

The dates of January 8-10 of 1988 have been set aside by G.R.A.C.E. (Greater Redding Area Computer Enthusiasts) for the yearly computer show which is held in the Mt. Shasta Mall. R.A.C.E. will be a very active participant as usual. Mike will be having an organizational meeting to set up the booth for the R.A.C.E. ST SIG. He will also be in contact with the president of the 8-bit SIG to inform them of plans.

A sheet showing the status of the R.A.C.E. ST SIG funds was passed around. The club as usual is in the hole, but things have improved a little. There have been many disk library sales and some advertising in the newsletter. Mike also announced that certificates for T-Shirt transfers were still available for \$4 each. A member could purchase the transfer from Mike then take the certificate into Shasta Silly Shirt Shoppe and Silkscreen to



have the transfer placed on a shirt of their choice. This might be a neat shirt to have for the computer show and would help out the club financially.

Next the monthly club disk was demonstrated. It included a musical program which displays a Casio synthesizer and plays a tune on the keys. It is a demo from ST-Express for Mikytrax, a new program which allows for recording of your favorite songs and it is MIDI compatible. It retails for \$19.95. A slideshow was also on the disk of popular movies and in the background a beautiful song played. A mouse response test was included which tests your response time to clicking and moving the mouse cursor onto targets. You are rated as time passes and you hit or miss targets. Finally Mike showed that there was an up-to-date listing for the ST library on the disk. Disks cost:

non-members:

\$5/disk - club supplies disk

\$3/disk - member supplies disk

members:

\$3/disk - club supplies disk

\$1/disk - member supplies disk

Magazine disks are:

\$3 more than above prices

since cost is involved in the subscription.

Traci Burton, Mentor teacher at Shasta Meadows Elementary School, took over at this point. She had written an article which appeared in the November newsletter updating users on what is out there for the ST in educational software. She said that she in no way had time to cover all programs that addressed this area but would highlight some of the better ones. She booted up Magical Myths and went through several screens of this program. She said that one particular feature she liked about this program was that you could create your own stories or myths from which certain vocabulary words could be stressed. Typing Tutors was also demonstrated and was

highly recommended for those wishing to improve their typing skills. Mike interjected that he had used it in his optometric office to increase the typing abilities of his receptionists. Numerous programs are out from First Byte Software. These include Kidtalk, a word processor for children which reads back the stories and letters which they type, Speller Bee, a spelling program where word lists can be entered and games played to build spelling skills, and Math Talk which address math skills. Firstbyte is also producing programs for the very young. They have 2 programs out, First Letters and Words and First Shapes which are specifically designed for the very young preschooler. Another company active in the educational software area is Unicorn Software. They market Math Wizard, Decimal Dungeon and Fraction Action. Traci also mentioned that Atari has a series of programs for the High School level called the Arakis series. It covers such topics as Algebra, Geometry, Physics, Chemistry, Biology, etc. It is not as entertaining and graphical appealing as some of the other companies, but possibly they do not see the need for such methods with high-school students. The meeting was concluded at this time and socializing and questions asking/answering ensued. Hope to see you at the next meeting where we will demonstrate PC-Ditto, the 5 1/4" drive as well as some Stereo-Tek glasses.





# RAMDISKS FOR YOUR 320 XE

by Alan Friedman

If you have had the interesting experience to upgrade your 130 XE to 320 K of RAM there are 2 public domain ramdisk programs available that utilize this additional RAM, SMARTR.230 uses DOS 2.0S and RAMDSK which works with almost any DOS. RAMDSK appears to be the most useful. This is the one which creates two 707 sector ramdisks.

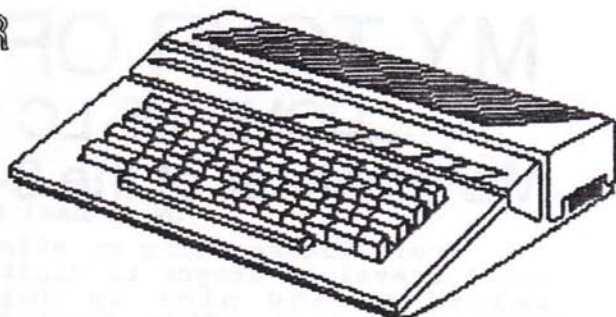
You may have discovered that you can rename the RAMDSK to RAMDISK.COM and it will be loaded at boot-up by DOS 2.5. The two disks created still have to be initialized from your program, or by using the XIO command from basic. This is done by adding two lines to any basic program. They are:

```
XIO,254,#1,0,0,"D3:"  
XIO,254,#1,0,0,"D$:"
```

This will initialize both disks

There are two very good and very popular programs that can take advantage of these ramdisks and work excellently with RAMDSK. They are Express 1030 and TextPro 1.1.

In Express 1030 you can initialize a disk from the opening window by typing "I" and then "3" or "4" at the prompt asking which drive to initialize. You can do this for both drives and have the capability of 1414 ram sectors online for uploading and downloading files. This should pretty well take care of all your disk needs for the allotted time on most bulletin boards. After you have logged off the board you can take your time transferring files to floppy disks or reading message bases you have captured to disk to



read later.

To initialize the ramdisk from TextPro you use the CONTROL-M option from the program. This lists the contents of drive 1. Pressing "3" gives you a blank bar in the top left hand corner. Press "F" and you are prompted for the drive number to format. Once again, enter "3" or "4" and the computer will format that drive.

You can now use this space for storing text you are working on and can write macros that automatically store and retrieve from these new ramdisks.

One point I need to emphasize is you must change your DOS to indicate you have more than two disk drives on line. This is done by loading DOS with BASIC, and typing in POKE 1802,15. Once this is done you need to go back to DOS, delete the DOS.SYS and DUP.SYS on the disk and using the "H" command and rewrite DOS back onto the disk. If this is not done, the computer will not know it has more than two drives (and ramdisk D8:) online and will give an error message every time you try to access drives 3 or 4.





# MY TOUR OF TEKTRONIX

## HOME OF LC TECHNOLOGIES

### Manufacturer of the 3-D Stereo-Tek Glasses

by Michael K. Farrar, O.D.

Every Thanksgiving my wife and I travel to Oregon to visit relatives and pick up our Christmas tree. This year I decided to take advantage of this holiday trip to visit a closeby company who is supplying a very interesting and soon to be very popular product for the Atari ST computer. I had been receiving several calls from LC Technologies about their marketing of the Stereo-Tek Glasses. Antic Software had been distributing them via an arrangement made with LC Technologies but LC Tech. decided apparently they wanted to market them exclusively themselves. In a recent phone conversation I asked if a tour would be possible the day before Thanksgiving. They said that this would be no problem and arrangements were made.

I should probably interject here for those of you not familiar with the Stereo-Tek glasses and products that this is a truly amazing development. Programs which are compatible with the glasses include Antic's CAD-3D, and any of the Cybermate or Cyber studio products. These programs are graphical design and art programs which allow for amazing 3-Dimensional pictures to be created and animated on the Atari ST. Another program, Genesis, allows for the presentation and manipulation of molecules and compounds in 3-dimensional forms. A very practical aid to chemists, chemistry professors and chemistry students. Numerous games are also available which allow for 3-Dimensional graphics to be viewed by the computer user as he participates in the game. Many other entertainment and application programs are in the

works.

Now back to my story. I made the long drive to Beaverton, which is about 20 minutes from Portland, Oregon. I had received directions to go to building 46 and meet with Kathy Henderson. I entered the building which was one of many professional looking structures in the industrial complex. A pleasant secretary with a southern accent greeted me and paged Kathy Henderson. I received my visitor pass and a few minutes later met Kathy Henderson who works with the marketing and sales department of LC Technologies which is a division of Tektronix Incorporated. I followed as we traveled through a maze of doors hallways and stairwells to reach the manufacturing department of the Stereo-Tek glasses. The research and development department was on another floor and I was not allowed there. I was allowed to look into the sealed room where the Stereo-Tek lenses are made for the glasses. In order to actually enter the room I would have had to suit up in a sterile and dust free jumpsuit and none were available at the moment.

I should interrupt again and explain that the Stereo-Tek glasses are a low-end application of the Liquid Crystal Shutter Display that LC Technologies has developed. The main market for them are monitor screens for computers. Their Liquid Crystal Displays allow for higher resolution color graphics on computer monitors. There are also numerous applications in the medical field where tumors and body organs can be viewed in 3-Dimensions for more realistic evaluation. Kathy said that she



had just received a video tape from a surgeon who had done some 3-Dimensional work on a program which would show the human spinal column using the Liquid Crystal Display on a computer. So like many of the spill over discovers from the space race, the Stereo-Tek glasses are just a scaled down application of a new technology. I should also mention that there are also experiments being done with the Liquid Crystal Displays and television and videos. This could be the next step in the video industry.

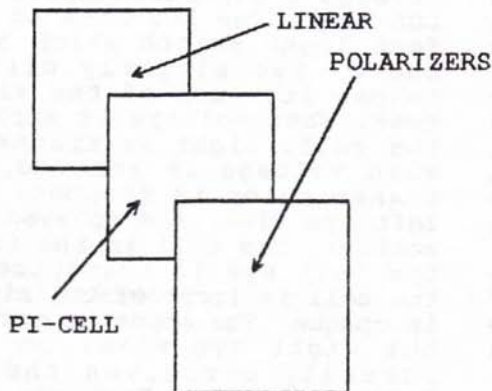
Well back to my tour. Kathy explained that the sheets of glass, for the LCD of the glasses or monitor screens, were dipped into trays of solution for coating. This was done several times and then the sheets were placed into ovens where the coatings were dried and cured. Next a micro-thin layer of crushed glass was spread over one of the sheets of glass, while another sheet was placed on top of this. Thus a sort of glass sandwich was created. Pressure is next applied to this glass sandwich to fuse the glass slightly. Finally Liquid Crystal Solution is injected via small holes using a vacuum chamber into the layer of crushed glass. This liquid diffuses uniformly throughout the sandwich. The holes are sealed and the Liquid Crystal Display is finished. Because the process is very tedious and has to be manually done, the cost of such LCD's are rather high currently. Any mistake in any step of the process will cause a problem. If the coatings do not take or cure properly, if the thickness of the crushed layer of glass is not uniform, if the liquid crystal does not diffuse properly a poor LCD product is created. I asked what kind of time is involved in production of the LCD's. Kathy stated that it usually takes them all day to run 50 pairs of the Stereo-Tek glass lenses. About this time someone named Joe passed by

and apparently he was the Main Man around the lab. Kathy asked if he could provide a more detailed tour and he simply shook his head in a very determined and pressing manner and then walked off without saying a word. I could tell that he wasn't really unfriendly, just extremely busy. Later I think he had some regrets for his shortness and did show us a short demonstration of the polarizing ability of the LCD lens of the Stereo-Tek glasses and gave me an unfinished lens for "Show-and-Tell" purposes.

Next, Kathy took me through another maze of stairways and halls to an office area where developers and workers were creating away inside fiberboard cubicles. I met Joe Pollack who apparently owns several patents on the LCD technology. He explained in more detail how the Stereo-Tek glasses work. He said that the Liquid Crystal Shutter is based on the fast switching pi-cell. It is a sandwich of glass and linear polarizers with a filling of liquid crystals (the pi-cell). Each eye observes the display through a separate active system LCS cell. The LCS acts as a very fast light switch which selects one of two slightly different images for each of the viewer's eyes. When voltage is applied to the cell, light is transmitted. When voltage is removed, light transmission is stopped. As the left eye view is displayed on the monitor, the cell in the front of the left eye is transparent and the cell in front of the right eye is opaque. The opposite occurs for the right eye view. Our brain normally perceives the world 3-Dimensionally. Each eye acts as a separate camera and views the world from a slightly different position. Thus the left and right eye images vary somewhat. This is called "binocular disparity". This binocular disparity helps us to determine the distance of objects we see. Stereoscopic displays



mimic this principle by creating two slightly different views of the same object and then presenting one to each eye. To our brain, the dual image appears as one image with depth. The LCS glasses are used in a field-sequential system. Field-sequential stereo alternately presents the right-then left-eye view. A complete stereo system is comprised of two fields: the right-eye view is displayed in the field one and the left-eye view in field two. The frame-rate, or refresh rate, is comprised of both fields, and refreshes at a rate of 30Hz for color and 35Hz for monochrome monitors. Field-sequential stereo systems have two advantages over other stereoscopic 3d video display techniques: (1) only one graphics system and one video monitor are needed, and (2) the horizontal resolution of a full screen is available for each eye view. The interface unit included in the Stereo-Tek package controls the opening and closing of each Liquid Crystal Shutter, and is connected to the glasses by a thin cable.



#### LIQUID CRYSTAL SHUTTER

Basically the Pi-cell made up of the Liquid crystal has molecules that are oriented so as not to allow light to pass through

the lens. Only upon application of voltage are the molecules of the liquid crystal stimulated to orient themselves 90 degrees from where they were, which is parallel to the linear polarizers and therefore light is allowed to pass through and vision of the one image is obtained.

Well so much for the simple explanation of how the Stereo-Tek glasses function. At this point the tour was over and I thanked Kathy for a very interesting trek into the world of 3 dimensions and high tech.

The Stereo-Tek Glasses are currently selling for \$149.95 from most distributors. Hopefully some time in the future the cost of producing the glasses can become more mechanized so that the cost can come down.

I will be demonstrating the glasses and answering questions at our next club meeting. I would say if you are very much into screen animation and graphics the glasses are a very exciting investment. The 3-dimension application in the Genesis (Chemistry molecule) program is somewhat of a luxury, but very useful in an educational setting. It is rather hard to justify the price for such a pair of glasses if you are only going to play 3-dimensional games, but again, if you have the money and want true realism you probably can't beat the Stereo-Tek glasses unless you have your own armed Starship.





# VAPOR WARE REPORT

## THE LATEST UNRELIABLE NEWS ON ATARI PRODUCTS

### THE TRANSPUTER/EST/TT/KING/??

Some of you may have heard about the EST versus "the KING". The EST name started several years ago and bespoke a replacement for the ST, with superior innards and high monitor resolution. Like so many of Atari's "new products" these come on as "wind testers", i.e. is the breeze right. As one developer noted, to pay for Research and Development production costs, Atari has to be relatively sure of moving 50,000 units of a new hardware product. So if you don't see the Atari PC's you'll know that the math was wrong, i.e. the prototypes either didn't have the draw and appeal, or before they could be produced lower market prices had preceded them. This is not necessarily bad business, in the near term, but it does add to market confusion, "should I buy now or wait" and it generates customer distrust.

EST - Eventually it may be a machine, but for now the EST is going to be a card that will plug into the Mega card slot. What will it do? Essentially provide enhanced graphics giving you resolution in color equivalent to what you now get in monochrome, 640 by 480 displaying 256 colors with a monochrome resolution for a very high res monitor of 1024 by 768 (or higher). On the monochrome end the question is will the operating system of the Mega handle all the demands. When it will be available is anybody's guess.

The KING - As if there weren't enough mythical pieces of hardware orbiting the Atari globe, there are now two versions being reported on with great authority. One version is out of Australia. It says that the new machine, the

KING, will be an ST and a Transputer 800, with 4 meg of RAM, a 40 meg hard drive, detachable keyboard, blitter, and a "production model" to be shown at the Hannover, Germany fair next March. If that makes the blood rush to your head, swing not by your heels waiting for it to arrive. The other version is more like the TT, whispered about last year. There is some evidence that Atari is increasing the pressure on Shiraz and his R & D unit to get this out by Comdex of next summer, or lose the battle to the MacIntosh II. So this KING is a thirty-two bit machine, with no Transputer but with similar memory and hard drive configurations of the first version.



The Transputer - The Immos T-800 Transputer has been around for some time in England. Kuma has been casting about for somebody to market it in the u.s. Basically it is a CPU capable of incorporating parallel processing chips or modules. Its attraction is the high rate of speed it can attain. While speed is a mystical thing in computers and like wine tasters, there is much disagreement about how you determine it, the transputer can accept up to 16 modules of parallel processor chips. With each add-on you increase the speed which starts at 10MIPS (million iterations per second) by 7.5 MIPS. Some kind of



device you might say. Atari hoped to display it at Comdex as a workstation in combination with a Mega ST and doing graphics emulations. Is it for now? NO! Atari says Europe in 1988 and the U.S. after that. So we consumers, who have complained about the 10 months' wait from announcement to purchase date for the Mega's, may indeed smile about what appears to be not so much Product Hype as Stock Hype.

CD ROM - The CD ROM drive that Atari first unveiled to much excitement and fanfare over a year ago is now being sold in England. It was shown at a computer fair in London, and reportedly the exhibitor had some trouble making it perform. It works with both ST's, Mega's and IBM's. What is not clear at this writing is whether it will support CD music disks as well as CD computer one's. Price is unknown but should have been announced at Comdex. Atari ostensible has four CD disk applications now available for the drive.

Laser - Atari is driving to get the laser out and mated with the Mega so that the two can make Atari Desk Top Publishing a reality. The push was for mid-November with the machines already arriving in Canada, and the FCC having approved its sale in the U.S. And the big news, yes, yes, it will have a Post Script software emulator! And the awkward news? The suggestion at Atari that it should only be given to dealers who not only have an External Sales Force but also an External Repair Facility, so that small businesses can keep going with their new Atari equipment without shutting down while their printer is off in someone's repair shop. Be that as it may, if the laser arrives with Post Script software at \$1995, it should have market appeal. We are told that software emulation of Post Script,

which Adobe has no control over, theoretically should be just as high quality as the hardware ROM version, which is prohibitively expensive.

Blitter - We have been troubled as we use our Mega ST4 each day, as to why there is not more evidence that the fabled blitter is doing its dazzling stuff. Other than being able to install humongous RAM drives of 2-3 megs, lacking any software that accesses the extra memory, we can only turn to the blitter to tell us that we are using a Mega and not an ST. But if there weren't an option block with the blitter showing a check mark to indicate it is active, we wouldn't know it was there. The standard blitter demo is the "flying bird" scene, where several birds flap across the screen, but with the blitter they supposedly swoop across it. Well, we asked Schneider, the invisible detective, and he reported back that when the blitter was refusing to perform, with quality control down to only five out of 25 good chips, someone at Atari made the decision to take out the functions that were causing the problem. So the original eight blitter functions were cut in half. The fill function and the 3 text formatting functions were quietly exorcised, like devils incarnate, leaving you with the A-line function for graphics, screen replacements, block moves and the line drawing function.





# ATARI'S SHORT-TERM

by Bob Kelly

condensed by Mike Farrar

## FINANCIAL OUTLOOK

### PAINE-WEBBER ANALYSIS

On Aug/6/87, Paine-Webber issued an updated analysis for Atari Corp. (ATC). It stated, "We believe that ATC stock offers some of the best upside potential over the next 6 - 10 months of any company we follow. We reiterate our buy (1)".

Atari announced also at this time its second quarter results. Sales rose up to roughly \$71 million for the second quarter versus \$61 million for the same period in 1986. For the full half year, sales were approximately \$136 million versus \$106 million for 1986. Six month net income was \$29 million or \$.50/share versus \$12 million and \$.28/share for 1986. This indeed was good news and the stock market reacted accordingly. By late August, Atari stock was selling for \$14.25/share and poised for further growth.

Near the end of August Atari announced that they agreed to purchase a consumer electronics retailer named FEDERATED GROUP INC. Who is FEDERATED? Federated Group is a regional consumer electronics retailer employing roughly 7,750 people. They operate 65 stores in 4 states. They have encountered considerable financial difficulty recently. Basically what affected them was the decline in the Texas economy where 19 of its major stores are located and about the time they took on a massive expansion of their chain, so did other electronic outlets.

Atari purchased Federated for \$6.25/share (roughly \$67 million). According to the Wall Street Journal, this was a real bargain. No one really knows how this fits into Atari's Short-Term Financial plans. There are some Long-term options which this purchase would foster though. There might be a change in the income bracket targeted by these Federated stores and the Mega could be sold more readily. Sam Tramiel also has been rumored to say that he would like Atari Corp. to evolve into a retailer similar to Radio Shack in concept and this could be the first step. Federated had been selling Commodore Amigas - this relationship proves to be very interesting now that Atari is

the owner.

A few quick notes on recent events: Since "Black Monday" (10/19/87) when stocks fell so dramatically Atari stock has suffered. It had already fallen 30% by mid-October and with the fall of Oct. 19th, it fell another 20%. While this paints a grim picture, there is hope. Infocorp a market research firm has predicted that personal computer sales will rise by 20% in the fourth quarter. Will this allow Atari to have a fourth quarter bonanza? Stay tuned!

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